

REMARKS

Claims 10, 17, and 20-26 remain pending.

Rejection Under 35 U.S.C. § 103(a) over Lahiff in View of Arnold et al.

Claims 10, 17, and 20-26 stand rejected as unpatentable over Lahiff in view of Arnold et al. Applicants respectfully traverse the rejection and request reconsideration of the claims.

The Examiner's attention is respectfully drawn to the Declaration of Joseph D. Rainville Under 37 C.F.R. § 1.132. Mr. Rainville, an engineer with considerable expertise in the area of fuel cells, compressors, and automotive vehicle systems provides us with an expert discussion of the contents of the Lahiff and Arnold publications underlying this rejection.

Applicants also draw the examiner's attention to the phrase in claim 10, at the end of the claim: "wherein said controller controls charging of said supplemental power source comprising regenerative braking of the compressor motor that converts mechanical energy into charging current." This action does not take place in Lahiff.

According to Mr. Rainville, the Lahiff publication describes using the Lahiff fuel cell compressor to dissipate ("waste") excess electrical power. This is quite the opposite of what the present invention does, which is to conserve energy from the fuel cell compressor. The Lahiff publication teaches away from Applicants' invention, and thus does not make Applicants' invention obvious. "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or *would be led in a direction divergent from the path that was taken by the applicant.*" *Optivus Tech., Inc. v. Ion Beam Applications S.A.*, 469 F.3d 978, 989 (Fed. Cir. 2006) (quoting *In re Kahn*, 441 F.3d 977, 990 (Fed. Cir. 2006)) (emphasis added). Nor does the Arnold patent

mitigate this teaching. As discussed by Mr. Rainville, the Arnold patent only concerns turbocharging an internal combustion engine.

In addition, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Such is the present situation, where the Lahiff teaches one to use a fuel cell compressor to waste, not generate, electrical power, and the Arnold does not counter this teaching in any way.

Still yet, nothing in the combined references teaches using the same supplemental power source charged by regeneratively braking the compressor to power the compressor in a rapid upward transient mode. The Arnold patent teaches to switch to an alternative source during charging of a primary source, not during a rapid upward transient mode. The Arnold mechanism is does not illustrate anything apropos of fuel cell systems in any event as it concerns an IC engine turbocharger. The relationships of the claimed invention are not present in or suggested by the prior art.

The Arnold turbocharger uses its compressor intermittently to provide bursts of power. The Arnold patent does not describe a compressor that is powered in a normal mode with a main power source and in a rapid transient mode with a supplemental power source. Nor does the Lahiff publication teach or suggest such an arrangement. Further, the Arnold turbocharger requires a turbine power source.

Because of these deficiencies of the combined references cited in rejection, reconsideration and allowance of the claims are thus respectfully requested.

Conclusion

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,



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April 17, 2009
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